

WEST Search History

DATE: Tuesday, September 10, 2002

<u>Set Name</u>	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u>
side by side		result set	
<i>DB=USPT; PLUR=NO; OP=OR</i>			
L11	L10 and bus	125	L11
L10	L9 and loop	171	L10
L9	L8 and detect\$	528	L9
L8	L5 and collision	554	L8
L7	L5	989	L7
L6	L5 and tokenring	2	L6
L5	(370/445 OR 370/447 OR 370/461 -462/ OR 370/452).CCLS.	989	L5
L4	L3 and detect	5	L4
L3	L2 and collision	5	L3
L2	L1 and tokenring	15	L2
L1	((709/\$)!.CCLS.)	14156	L1

END OF SEARCH HISTORY

Monitor with (data or medium bus Network) near 3 collision
& same (wake or active) ,
Token (wake near 2 packet) .

ABSTRACT:

A distributed arbitration scheme for a network. Ports in a network device determine which port in a set of ports may broadcast a packet onto a bus in the network device. A method of transmitting data between a set of ports sharing a bus in hub is described. The set of ports includes a first port, and the method comprises the first port receiving a packet, the first port requesting the bus, and, if another port is requesting the bus, the first port transmitting the packet to the bus if the first port has not transmitted a packet later than the another port requesting the bus. A system using two clocks of different speeds in a network device device. The hub has at least a port. The port has an internal data path having a first width. A bus is coupled to the port. The bus has a data path that has a second width. The second width is greater than the first width. The hub includes a first clock that has a first frequency and is coupled to circuitry in the port for clocking internal data transfers. The hub includes a second clock that has a second frequency less than the first frequency, and the second clock is coupled to circuitry in the port for clocking data transfers with the bus.

26 Claims, 6 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 6

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMC
Draw Desc Image										

9. Document ID: US 6292493 B1

L11: Entry 9 of 125

File: USPT

Sep 18, 2001

US-PAT-NO: 6292493

DOCUMENT-IDENTIFIER: US 6292493 B1

TITLE: Method and apparatus for detecting collisions on and controlling access to a transmission channel

DATE-ISSUED: September 18, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Campbell; Graham M.	Batavia	IL		
Xu; Wenxin	Westmont	IL		

ABSTRACT:

A method for controlling multiple access of a transmission channel wherein a plurality of different patterns are assigned to a plurality of sending stations so that each sending station corresponds to a unique pattern, preferably a pattern represented by a Binomial coefficient. Each unique pattern is transmitted from a corresponding sending station to the transmission channel by way of a control minislot. Ternary feedback is received from the control minislot. A summation of different patterns within each control minislot are analyzed to detect whether a collision exists between the different patterns within each control minislot.

7 Claims, 15 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 12

10. Document ID: US 6289024 B1

L11: Entry 10 of 125

File: USPT

Sep 11, 2001

US-PAT-NO: 6289024

DOCUMENT-IDENTIFIER: US 6289024 B1

TITLE: Structure for the connection of a plurality of electronic devices to an ARINC 629 type bus

DATE-ISSUED: September 11, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Toillon; Patrice	Le Pecq			FR

US-CL-CURRENT: 370/445

ABSTRACT:

A structure to connect a plurality of electronic devices to an ARINC type external bus including a local bus with a sufficiently small length to overcome a phenomena of attenuation and propagation time, a connection channel for connection to the local bus for each of the devices located in one and the same zone, and at least one connection channel for the connection of the local bus to the external bus.

36 Claims, 11 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 7

11. Document ID: US 6278713 B1

L11: Entry 11 of 125

File: USPT

Aug 21, 2001

US-PAT-NO: 6278713

DOCUMENT-IDENTIFIER: US 6278713 B1

TITLE: Method and apparatus for distributed queue digital data transmission employing variable length data slots

DATE-ISSUED: August 21, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Campbell; Graham M.	Batavia	IL		
Wu; Chien-Ting	Chicago	IL		

US-CL-CURRENT: 370/417; 370/447, 370/462

ABSTRACT:

A data transmission and receiving network includes a plurality of nodal apparatus for sending and receiving digital data in variable length data slots. The nodal apparatus includes a storage device for maintaining a conflict resolution queue representative of nodal apparatus sending simultaneous requests for transmission causing a collision during a control minislot. The nodal apparatus also includes a transmission queue stored in the storage device. The transmission queue is indicative of nodal apparatus that have successfully transmitted during a minislot and are thus queued for transmission of data in data slots. The apparatus includes a transmitter for sending a variable length data slot signal comprising digital data in response to the state of the transmission queue. The nodal apparatus also includes a receiver for receiving a variable length data slot signal.

15 Claims, 10 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 8

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Drawn Desc	Image								KMPC

12. Document ID: US 6243826 B1

L11: Entry 12 of 125

File: USPT

Jun 5, 2001

US-PAT-NO: 6243826

DOCUMENT-IDENTIFIER: US 6243826 B1

TITLE: Redundant network management system for a stackable fast ethernet repeater

DATE-ISSUED: June 5, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Quoc; Tuyen V.	Saratoga	CA		
Liebthal; Alan P.	Los Gatos	CA		

US-CL-CURRENT: 714/4; 370/445, 709/209

ABSTRACT:

Provided is a redundant network management system. Several network management modules (NMMs), preferably one for each repeater unit, are provided in a single repeater stack. The NMMs of the repeater stack communicate using a management bus. The modules communicate on the management bus by sending small messages, referred to as "frames." In a preferred embodiment, the present invention is preferably used in conjunction with a relatively simple and economical 8-bit management bus. This low cost implementation allows only one NMM to access the bus at any given time, and makes use of protocols by which multiple NMMs may use the management bus to communicate while ensuring that no two modules attempt to use the bus at the same time. Moreover, according to the present invention, only one NMM (referred to as the "master") will perform all of the network management functions for the stack at any one time. The remaining modules operate in "slave" mode. When in slave mode, the modules are on stand-by, ready to take the role of master if necessary. This master/slave relationship provides a level of fault tolerance and redundancy to the user in a seamless manner, thereby improving network performance and reliability.

45 Claims, 7 Drawing figures

Exemplary Claim Number: 39

Number of Drawing Sheets: 7

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chan; Kurt	Roseville	CA		
Black; Alistair D.	Los Gatos	CA		

US-CL-CURRENT: 370/452; 370/461

ABSTRACT:

An apparatus for accelerated Fiber Channel protocol handshaking and data exchange involves dividing a Fiber Channel arbitrated loop architecture up into a plurality of arbitrated subloops, each of which arbitrates locally using the same fundamentals as the Fiber Channel arbitration protocol but with some slight modifications which do not affect the compatibility of standard Fiber Channel nodes. Each subloop is coupled to a hub port which contains a state machine which implements distributed intelligence to do switching function and fill word generation to implement the accelerated protocol by using a plurality of switching, fill word generation and token passing rules. The state machine in each hub port is coupled to its local subloop and to its neighboring hub ports through a single TDMA bus which has timeslots dedicated to carrying broadcast loop and return loop traffic and control token traffic. In some embodiments, the hub ports are coupled to their neighboring hub ports by separate broadcast and return loops and a control loop used for token passing.

12 Claims, 43 Drawing figures

Exemplary Claim Number: 4

Number of Drawing Sheets: 43

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Draw Desc Image									KODIC

15. Document ID: US 6122667 A

L11: Entry 15 of 125

File: USPT

Sep 19, 2000

US-PAT-NO: 6122667

DOCUMENT-IDENTIFIER: US 6122667 A

TITLE: Method and integrated circuit for high-bandwidth network server interfacing to a local area network using CSMA/CD

DATE-ISSUED: September 19, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chung; David H.	Sunnyvale	CA		

US-CL-CURRENT: 709/228; 370/338, 370/445, 370/466, 370/469, 709/223, 709/229, 709/230, 709/250

ABSTRACT:

A single-chip, network interface controller (NIC) integrated circuit (IC) with a host interface and arbiter common to two 10BASE-T ETHERNET local area network (LAN) segments with respective unshielded twisted pair interfaces, encoder-decoders, medium access controllers, first-in first-out register memory arrays, and buffer management. Source-address and destination-address content addressable memories are connected to respective MAC receivers in the-medium access controllers to both learn the addresses of network clients on the two segments and then to transparently bridge packets between the LAN segments. The NIC effectively increases the bandwidth of a server connection to the thus unified network.

4 Claims, 9 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 8

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMC
Draw Desc	Image									

16. Document ID: US 6108344 A
L11: Entry 16 of 125 File: USPT Aug 22, 2000

US-PAT-NO: 6108344
DOCUMENT-IDENTIFIER: US 6108344 A

TITLE: Method, means and system for communicating on a shared transmission medium
DATE-ISSUED: August 22, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Delumeau; Fran.cedilla.ois	Rennes			FR

US-CL-CURRENT: 370/445

ABSTRACT:

The present invention relates notably to a method for sharing a transmission medium between communication apparatuses having an identifier, each adapted on the one hand to transmit messages by device of the transmission medium, during so-called "transmission" phases, and/or on the other hand to receive messages by device of the transmission medium, during so-called "reception" phases. Each communication apparatus stores, in each reception phase, and associated with identifiers, activity states representing the last messages transmitted by the communication apparatuses having these identifiers, in their own transmission phases. In a so-called "transmission preparation" phase preceding each transmission phase, each communication apparatus determines, according to first predetermined rules taking into account at least certain of the said activity states, at what moment it can transmit a message on the transmission medium.

51 Claims, 12 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 10

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMC
Draw Desc	Image									

17. Document ID: US 6092214 A
L11: Entry 17 of 125 File: USPT Jul 18, 2000

US-PAT-NO: 6092214
DOCUMENT-IDENTIFIER: US 6092214 A

TITLE: Redundant network management system for a stackable fast ethernet repeater
DATE-ISSUED: July 18, 2000

Data bandwidth on a congested link of a Carrier Sense Multiple Access with Collision Detection (CSMA/CD) network, is controlled by a Pause MAC Frame which carries information identifying devices causing the problem on the link. The Recipient of the Pause MAC Frame can use the information to deactivate selected devices on the congested link. As a consequence, the data bandwidth is reduced without shutting down the link.

24 Claims, 9 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 6

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC
Draw Desc	Image									

22. Document ID: US 6005869 A

L11: Entry 22 of 125

File: USPT

Dec 21, 1999

US-PAT-NO: 6005869
DOCUMENT-IDENTIFIER: US 6005869 A

TITLE: Communication network

DATE-ISSUED: December 21, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Sakai; Takahisa	Amagasaki			JP
Ikeda; Toshihisa	Kyoto			JP
Kurosaki; Toshihiko	Kobe			JP
Mizuguchi; Yuji	Kyoto			JP
Oga; Toshio	Neyagawa			JP

US-CL-CURRENT: 370/452; 370/503

ABSTRACT:

A master station including at least a token packet (Iso) management table in which the overall band of the bus is partitioned into certain bands, rewrites the token packet (Iso) management table according to the bandwidth required in Isochronous data transmission between stations to at least control transmission of token packets (Iso) and dynamically control the bandwidth.

33 Claims, 39 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 28

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC
Draw Desc	Image									

23. Document ID: US 5999538 A

L11: Entry 23 of 125

File: USPT

Dec 7, 1999

US-PAT-NO: 5999538
DOCUMENT-IDENTIFIER: US 5999538 A

28. Document ID: US 5870566 A

L11: Entry 28 of 125

File: USPT

Feb 9, 1999

US-PAT-NO: 5870566

DOCUMENT-IDENTIFIER: US 5870566 A

TITLE: Port expansion network and method for lan hubs

DATE-ISSUED: February 9, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Joh; Clarence Chulljoon	Allentown	PA		

US-CL-CURRENT: 709/251; 370/452, 710/107, 710/240

ABSTRACT:

An expandable local area hub network is provided by the present invention. The network comprises a plurality of hubs interconnected for direct communication. Each hub includes a plurality of ports for interfacing with remote stations, wherein the remote stations make requests that packets be transmitted on a memory coupled to the plurality of hubs. In use, one of the plurality of hubs is designated as a temporary controlling hub having controlling access to the memory bus to transmit packets on the memory bus. The temporary controlling hub relinquishing access to the memory bus when the temporary controlling hub has no requests to dispatch a packet on said memory bus.

17 Claims, 3 Drawing figures

Exemplary Claim Number: 7

Number of Drawing Sheets: 2

29. Document ID: US 5799018 A

L11: Entry 29 of 125

File: USPT

Aug 25, 1998

US-PAT-NO: 5799018

DOCUMENT-IDENTIFIER: US 5799018 A

TITLE: Method and system for private communication with efficient use of bus type transmission path

DATE-ISSUED: August 25, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Kanekiyo; Tomoyuki	Kanagawaken			JP
Kojima; Haruhiko	Kanagawaken			JP
Nishi; Hiroyuki	Kanagawaken			JP

ABSTRACT:

A private communication system using bus type transmission path, in which a plurality of communication terminal devices for carrying out communications and a system main device for exchanging communications from the communication terminal devices are connected by upward and downward digital transmission paths for transmitting data in forms of upward and downward transmission frames formed by a plurality of cells in fixed length. The system main device determines an allocation of idle cells in each upward transmission frame to a communication from each communication terminal device according to a communication request made by each communication terminal device, and transmits a notification for the determined allocation to each communication terminal device by using an idle cell among the cells in each downward transmission frame, such that each communication terminal device recognizes allocated cells on the upward digital transmission path available for the communication from each communication terminal device according to the notification transmitted through the downward digital transmission path.

10 Claims, 13 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 6

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Drawn Desc Image									KMC

30. Document ID: US 5764629 A

L11: Entry 30 of 125

File: USPT

Jun 9, 1998

US-PAT-NO: 5764629

DOCUMENT-IDENTIFIER: US 5764629 A

TITLE: Method and apparatus for avoiding collisions in an electronic business set terminal

DATE-ISSUED: June 9, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bower; David M.	Windsor	CA		
Trefz; Deborah W.	Cotati	CA		

ABSTRACT:

An electronic business set terminal (24) includes a signaling gate array (40) that performs reception and transmission of 8 kHz signaling messages while avoiding collisions that may result in message loss. The signaling gate array (40) includes a receiver section (50) that detects for activity on an 8 kHz signaling line (20). A start bit detector (62) identifies the beginning of a receive message that is collected by a data collector (64). A transmitter section (52) sends a transmit message when no activity is present on the 8 kHz signaling line (20) and there is no indication from the start bit detector (62) that a receive message is in the process of being received. A collision detector and avoidance unit (72) checks for activity on the 8 kHz signaling line (20) while the transmitter section (52) awaits for a zero crossing to occur on an 8 kHz clock signal used in sending the transmit message. Upon initiation of transmission, the collision detector and avoidance unit (72) checks for activity on the 8 kHz signaling line (20) while sending each zero bit of the transmit message. The collision detector and avoidance unit (72) is

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Draw Desc	Image								

KWIC

35. Document ID: US 5706278 A

L11: Entry 35 of 125

File: USPT

Jan 6, 1998

US-PAT-NO: 5706278

DOCUMENT-IDENTIFIER: US 5706278 A

TITLE: Deterministic network protocol

DATE-ISSUED: January 6, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Robillard; Michael N.	Shrewsbury	MA		
Morrison; Brian D.	Hopkinton	MA		

US-CL-CURRENT: 370/222; 370/443, 370/452, 370/460

ABSTRACT:

A deterministic network protocol for connecting critical sensors, actuators and computing elements on a bi-directional, time-multiplexed, fiber optic or other media data bus, such that critical messages have concisely bounded latency and non-critical messages may be sent without impacting critical messages. It is a unique combination of a time-slot allocation-protocol and a contention-based protocol in which global synchronization information is passed on the data media via a synchronization beacon.

33 Claims, 8 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 7

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Draw Desc	Image								

KWIC

36. Document ID: US 5671249 A

L11: Entry 36 of 125

File: USPT

Sep 23, 1997

US-PAT-NO: 5671249

DOCUMENT-IDENTIFIER: US 5671249 A

TITLE: Inter-repeater backplane with synchronous/asynchronous dual mode operation

DATE-ISSUED: September 23, 1997

INVENTOR-INFORMATION:

DATE-ISSUED: November 14, 1995

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Baumert; Robert J.	Allentown	PA		

US-CL-CURRENT: 370/452

ABSTRACT:

An extendible, round robin, local area hub station network includes: at least two round robin hub station segments coupled so as to form a ring-shaped hub station segment signal path. One of the two hub station segments includes a master hub station segment adapted to provide control signals, such as electrical or optical signals, on the ring-shaped segment signal path to transfer control of round robin polling over the hub station network between any two hub station segments in the hub station network. The hub station segments are also mutually coupled by a signal bus. Likewise, a method of round robin polling in an extendible, round robin, local area hub network includes the steps of: signaling a request for control of round robin polling over the hub station network from at least one of the at least two hub station segments in the hub station network to the master hub station segment, and transmitting a signal from the master hub station segment transferring control of round robin polling over the hub station network between any two of the at least two hub station segments.

20 Claims, 7 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 5

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMC
Draw Desc Image										

49. Document ID: US 5465254 A

L11: Entry 49 of 125

File: USPT

Nov 7, 1995

US-PAT-NO: 5465254

DOCUMENT-IDENTIFIER: US 5465254 A

TITLE: Ring-type communication network

DATE-ISSUED: November 7, 1995

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Wilson; Philip D.	Sudbury	MA	01776	
Serafin; Richard D.	Westboro	MA	01581	
Kelley; Paul W.	Hopkinton	MA	01748	
Witkowicz; Tadeusz	Milbury	MA	01527	

US-CL-CURRENT: 370/466; 359/119, 359/135, 370/445, 370/452

ABSTRACT:

An optical fiber ring network carries data in frames of bit intervals that define a number of independent communication bands each represented by a series of spaced apart bit intervals no more than one of which falls within any given frame. The network serves a collision detection protocol by nodes that communicate with the user devices in accordance with the collision detection protocol but communicates with the ring in accordance with a non-collision type protocol. The network uses

light that is amplitude modulated at more than two levels. The data frame boundaries are defined by violations of an alternate mark inversion data encoding technique. Phase synchronization of two streams of frames is accomplished by sampling frames at times governed by a selected one of two frame boundary clocks derived respectively from the two frames.

4 Claims, 15 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 10

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Drawn Desc Image									KMC

50. Document ID: US 5453987 A

L11: Entry 50 of 125

File: USPT

Sep 26, 1995

US-PAT-NO: 5453987

DOCUMENT-IDENTIFIER: US 5453987 A

TITLE: Random access protocol for multi-media networks

DATE-ISSUED: September 26, 1995

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Tran; Hai V.	Falls Church	VA		

US-CL-CURRENT: 370/447; 370/203, 370/461

ABSTRACT:

A protocol for mixed voice and data access to a synchronous broadcast communications channel (116) is provided. Transmission on the broadcast communications channel (116) is by means of a plurality of time division frames, each such frame being defined by a plurality of time slots (210). The protocol requires that a user determine whether a time slot is available. If a slot is available, a user transmits a preamble (212) on the broadcast communications channel and then substantially simultaneously monitors the channel for determining whether a collision of the preamble has occurred. If a collision has occurred with a second user who has a higher priority, the first user reattempts to acquire an available time slot after a time delay, the time delay being equivalent to a random number of time slots. If on the other hand, the collision was with a second user of equal priority, both users will reattempt acquisition of available time slots after respective random time delays. The preambles of users of different priority are transmitted using a non-interfering code or modulation frequency, thereby allowing the higher priority user to continue transmission of the remaining fields which make up that user's information packet. Another key feature of the protocol is the use of the preamble (212) to identify voice users that are in silence periods, transmitting no data. Under these circumstances, the protocol permits data users to utilize such identified time slots when they are encountered, thereby increasing the throughput of the data communications system.

15 Claims, 8 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 7

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Drawn Desc Image									KMC

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Schwickler; Leonhard	D-5100 Aachen			DE
Scholten; Klaus	D-7044 Enningen			DE
Schreiber; Friedrich	Monschau			DE
Gorg; Carmelita	Aachen			DE

✓ US-CL-CURRENT: 370/447; 340/825.5, 370/458

ABSTRACT:

A process is disclosed whereby each of a plurality of stations, transmitting messages segmented into multiple sequential packets, is able to access a transmission channel of a local communications network. A residual packet number is associated with each message representing the number of packets remaining in the message after the instant packet has been transmitted. The number of packet collisions on the transmission channel is reduced by employing a resolution phase, which may be divided into several time intervals. Stations transmit messages with certain residual packet numbers during predetermined time intervals of the resolution phase. A station transmits its next packet after the end of the ongoing transmission if its residual packet number is smaller than the residual packet number of the ongoing message transmission.

15 Claims, 11 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 8

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC

□ 76. Document ID: US 5237322 A

L11: Entry 76 of 125

File: USPT

Aug 17, 1993

US-PAT-NO: 5237322

DOCUMENT-IDENTIFIER: US 5237322 A

TITLE: Master-slave data transmission system employing a flexible single-wire bus

DATE-ISSUED: August 17, 1993

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Heberle; Klaus	Reute			DE

US-CL-CURRENT: 340/870.13; 340/825.52, 370/461, 370/472, 375/356

ABSTRACT:

A master-slave data transmission system employs a flexible single-wire bus and where any master unit can send data to or read data from any slave at a single time. Data transfer is accomplished by means of a flexible message format having a variable-length address section and a variable-length data section, with the beginning and end of the individual message sections being defined by labels, and a fixed bit clock being transmitted for a given interval before and/or after the message. During multiple master operation, a priority control arrangement prevents two or more masters from accessing the single-wire bus at the same time.

19 Claims, 11 Drawing figures

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Whitehill; Eric A.	Fort Wayne	IN		
Dempsey; Tim	Fort Wayne	IN		

US-CL-CURRENT: 370/338; 370/439, 370/445**ABSTRACT:**

A network of nodes communicates using plural, shared parallel data channels and a separate reservation channel. Access to the data channels is coordinated among the nodes by communicating message requests and corresponding replies on the reservation channel. In addition to a primary transmitter/receiver (e.g., a modem), each node includes a secondary receiver that permits each node to continuously monitor the reservation channel. When not engaged in a message transfer on one of the data channels, the primary receiver monitors the reservation channel. If the primary becomes engaged in a message transfer, the secondary receiver is activated and monitors the reservation channel. Use of the secondary receiver avoids loss of channel access information resulting from use of a single receiver for both the reservation and data transfer mechanisms. By transmitting requests for channel access on the reservation channel and continuously monitoring the reservation channel, message collisions are dramatically reduced.

113 Claims, 9 Drawing figures

Exemplary Claim Number: 22

Number of Drawing Sheets: 7

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWC
Draw Desc Image										

 3. Document ID: US 6400726 B1

L11: Entry 3 of 125

File: USPT

Jun 4, 2002

US-PAT-NO: 6400726

DOCUMENT-IDENTIFIER: US 6400726 B1

TITLE: Allocation to a plurality of elements of authorizations for access to a shared resource

DATE-ISSUED: June 4, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Piret; Philippe	Cesson-Sevigne			FR
Rousseau; Pascal	Rennes			FR

US-CL-CURRENT: 370/449; 370/461**ABSTRACT:**

The invention proposes a method for allocating, to a plurality of elements, authorisations for access to a shared resource, including the step (E4) of storing the address of elements capable of accessing the shared resource, characterised in that it includes the steps of determining (E6), for the plurality of elements, a number (TTJ) of authorisations for access to the resource, the said authorisations together forming a cycle, then successively assigning (E8, E80) each of the said authorisations to the elements, during the said cycle, an access authorisation being assigned to an element according to at least the number of times the element under consideration accessed the resource during the preceding cycle, and finally storing